

SIMPLE SEISMIC NETWORK MANAGEMENT AND INSTRUMENT QUALITY ASSURANCE



Discovery dramatically simplifies instrument and data management and quality assurance, giving users access to powerful digitiser tools via its built-in web browser.

Discovery is the software platform for our next generation Minimus digitiser and Minimus integrated digital instruments.

Developed by Güralp, Discovery eliminates the need for static IP addresses by identifying the digitiser's address automatically. Discovery scans local networks and/or uses a registry (based in the data centre or the cloud) to identify digitisers on the public Internet.

Discovery also allows for simpler instrument and data management with access to hardware State-of-Health (SoH); data streaming; GNSS (Global Navigation and Satellite System) location; instrument response and calibration values.

The system offers a range of data quality assurance tools to assist in analysing instrument performance.

State-of-Health information

The Discovery interface provides State-of-Health information about the digitiser and connected instruments:

- > Host name and label
- > System and product types
- > Digitiser IP address
- > Digitiser activity status
- > Digitiser uptime and lost contact time
- > Supply voltage
- > Digitiser temperature, humidity and pressure*
- > GNSS (Global Navigation and Satellite System) and PTP (Precision Time Protocol) status*
- > MicroSD cards recording status and available storage space*

* Stand alone and integrated Minimus digitisers only

Key features

IP address discovery of instrumentation on LAN or Internet

Simple instrument and data management with access to hardware State-of-Health (SoH); data streaming; GNSS location; instrument response and calibration values

Data can be streamed in GCF and GDI formats

GDI protocol streams data sample-by-sample and can incorporate instrument calibration parameters, so enabling low latency display of instrument output

Perform advanced analysis on waveform data, including plotting power spectral density graphs (PSDs), spectrograms, discrete Fourier transforms (DFTs), and histogram displays

Display a map of triggered events from CAP (Common Alert Protocol) receiver

Quick access to locally recorded data saved to SD card with capability to backfill any gaps in GDI streamed data

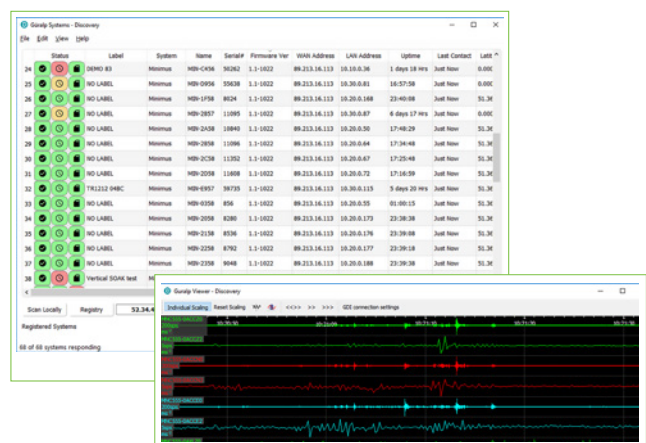
Facility to remotely upgrade the digitisers' firmware and upload configuration to multiple units simultaneously

Calibration of the Radian magnetometer

Available for Windows, iOS and Linux operating systems

Discovery toolkit

See pages 2 - 4 for a view of the network management tools available in Discovery



Further screenshots and example →

Discovery Toolkit

Network overview

Traffic light status system for rapid network assessment

Status	Label	System	Name	Serial#	Firmware Ver	WAN Address	LAN Address	Uptime	Last Contact	Last ^
24	DEMO 83	Minimus	MIN-C456	50262	1.1-1022	89.213.16.113	10.10.0.36	1 days 18 Hrs	Just Now	0.00C
25	NO LABEL	Minimus	MIN-D956	55638	1.1-1022	89.213.16.113	10.30.0.81	16:57:58	Just Now	0.00C
26	NO LABEL	Minimus	MIN-1F58	8024	1.1-1022	89.213.16.113	10.20.0.168	23:40:08	Just Now	51.3C
27	NO LABEL	Minimus	MIN-2B57	11095	1.1-1022	89.213.16.113	10.30.0.87	6 days 17 Hrs	Just Now	0.00C
28	NO LABEL	Minimus	MIN-2A58	10840	1.1-1022	89.213.16.113	10.20.0.50	17:48:29	Just Now	51.3C
29	NO LABEL	Minimus	MIN-2B58	11096	1.1-1022	89.213.16.113	10.20.0.64	17:34:48	Just Now	51.3C
30	NO LABEL	Minimus	MIN-2C58	11352	1.1-1022	89.213.16.113	10.20.0.67	17:25:48	Just Now	51.3C
31	NO LABEL	Minimus	MIN-2D58	11608	1.1-1022	89.213.16.113	10.20.0.72	17:16:59	Just Now	51.3C

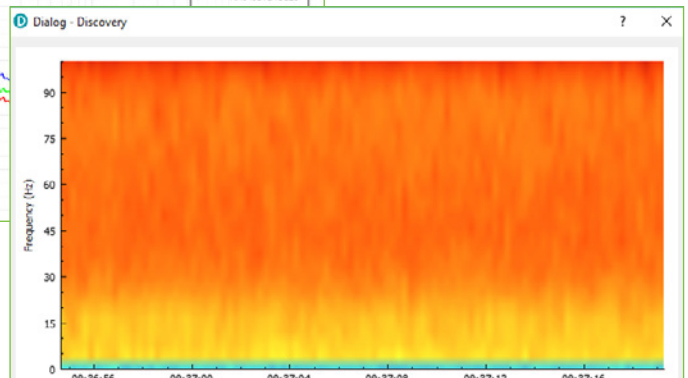
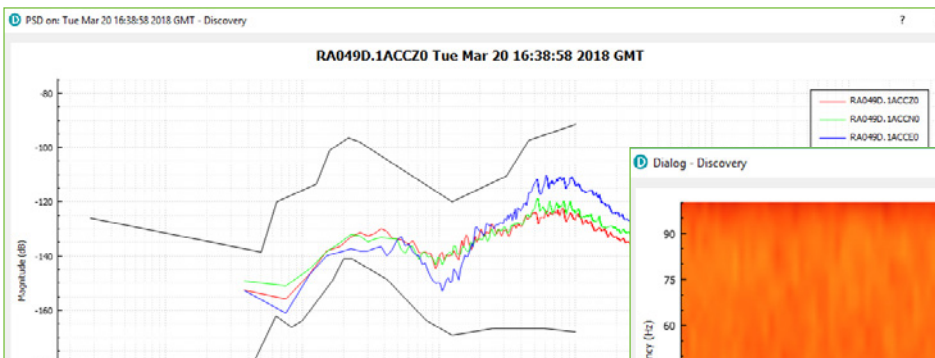
Real-time waveform viewer

Basic amplitude and time zoom functions with streams easily added or removed



Advanced analysis

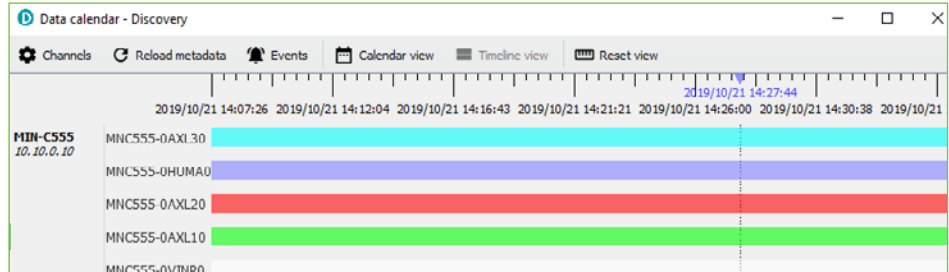
Perform advanced analysis on data, including plotting power spectral density graphs (PSDs), spectrograms and discrete Fourier transforms (DFTs)



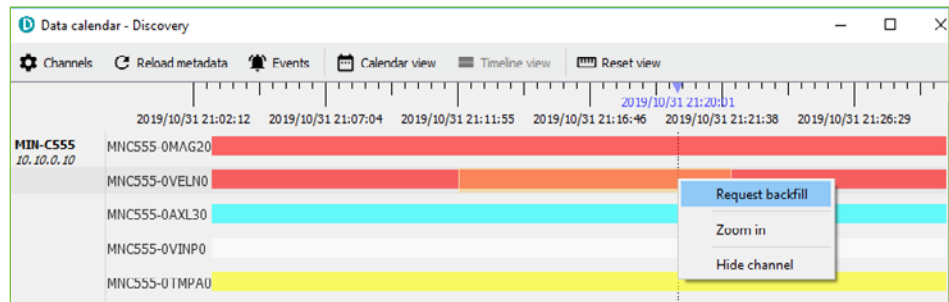


Event calendar view

View locally recorded data captured over preceding two weeks

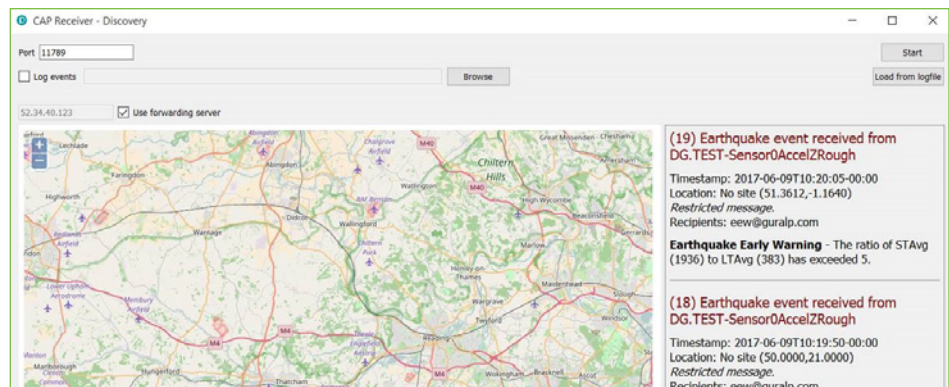


With the option to backfill gaps in streamed data from the SD card.



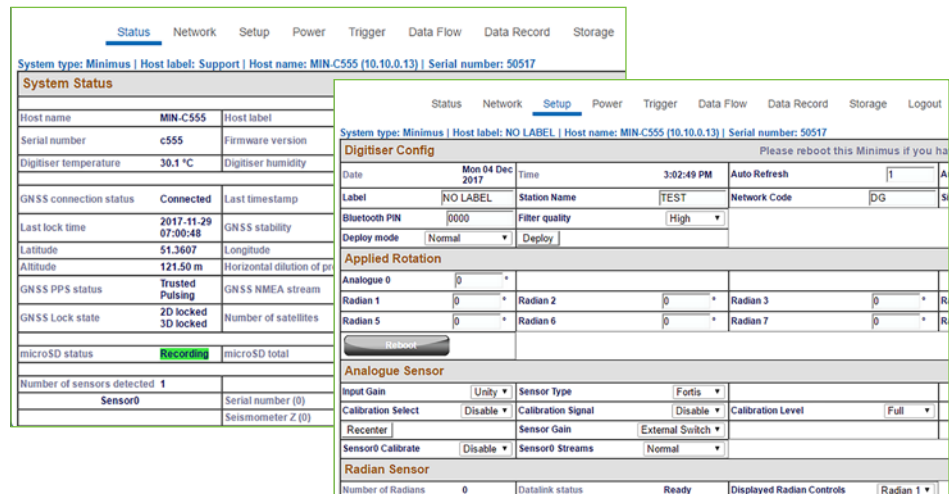
Map of triggered events from CAP receiver

The information contained in the CAP message are displayed at the right-hand side of the window.



Digitiser web interface

Access networked digitiser web interface and configure digitiser settings



SIMPLE SEISMIC NETWORK MANAGEMENT AND INSTRUMENT QUALITY ASSURANCE

Network management using Discovery

